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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/696,824 | 10/30/2003 | Patricia A. Beck | 10970996-7 | 1875 |
| 7590 | 11/01/2005 | | EXAMINER | |
| HEWLETT-PACKARD COMPANY | | | CHEN, TIANJIE | |
| Intellectual Property Administration | | | ART UNIT | PAPER NUMBER |
| P. O. Box 272400 | | | | 2652 |
| Fort Collins, CO 80527-2400 | | | | |

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) |
|------------------------------|------------------------|------------------------------------------------------------------------------------------------|
| | 10/696,824 | BECK ET AL.  |
| Examiner | Art Unit | |
| Tianjie Chen | 2652 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 17 August 2005.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 15-28 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 15-28 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

Non-Final Rejection

Election/Restrictions

1. Applicant's election without traverse of claims 15-28 and cancellation of claims 1-14 in the reply filed on 08/17/2005 is acknowledged.

Claim Objections

2. Claims 15, 17, 19, 21-26 are objected to because of the following informalities:

- In claim 15, line 2; "the" should be deleted.
- In claim 19, lines 3 and 4; "spacer" should be changed to --space--, respectively.
- In claim 25, line 2; "space" should be changed to --spacer--.
- In claims 17, and 21-26, line 1; "the step" should be changed to --a step--, respectively.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 17 and 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 17 recites "the trailing edge being disposed adjacent to the head surface such that the tape passes over the trailing edge **prior to** passing over the head surface." However, neither written description nor drawings show this feature. Instead, the written description says: "the trailing edge being disposed adjacent to the head surface such that the tape passes over the trailing edge **after** passing over the head surface" in p. 4 in specification.

Claim 18 is rejected for its dependence from claim 17.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 15-18 are rejected under the judicially created doctrine of double patenting over claim 14-17 of U. S. Patent No. 6,018,444 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

The subject matter claimed in claim 15 in the instant application is fully disclosed in claim 14 in US patent No. 6,018,444.

The subject matter claimed in claim 16 in the instant application is fully disclosed in claim 15 in US patent No. 6,018,444.

The subject matter claimed in claim 17 in the instant application is fully disclosed in claim 16 in US patent No. 6,018,444.

The subject matter claimed in claim 18 in the instant application is fully disclosed in claim 17 in US patent No. 6,018,444.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joannou (US 4,996,609).

Claim 15, Joannou shows a servo write method for magnetic tape, the method including: steps of: passing the tape over a substantially planar head surface (Fig. 2) having a leading edge (right side of 30), the lading edge being disposed adjacent to the

head surface (top surface of 30) such that the tape contacts the leading edge before passing over the head surface, the leading edge being rounded; and using the head to write servo position code onto the tape (Column 2, lines 62-67).

Joannou does not mention air bearing.

Official Notice: it is well known in the art that there is always an air-bearing surface between the head surface and the tape. One of ordinary skill in the art would have been expecting an air-bearing surface between the head surface and the tape in Joannou's device.

Claim 16, Joannou shows that grinding is used for forming the surface (Column 5, lines 66-68). And it is well known in the art that grinding is a commonly used method of rounding the edges. One of ordinary skill in the art would have been reasonably expecting that the leading edge in Joannou can be rounded by grinding.

A "product by process" claim is directed to the product per se, no matter how actually made, see *In re Hirao*, 190 USPQ 15 at 17 (footnote 3 CCPC, 5/27/76); *In re Brown*, 173 USPQ 685 (CCPA 5/18/72); *In re Luck*, 177 USPQ 523 (CCPA, 4/26/73); *In re Fessmann*, 180 USPQ 324 (CCPA, 1/10/74); *In re Thorpe*, 227 USPQ 964 (CAFC, 11/21/85). The patentability of the final product in a "product by process" claim must be determined by the product itself and not the actual process and an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. In this claim, "blending, grinding, machining, and faceting" are process related limitation, and no weight will be given in determining patentability.

6. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joannou, and further in view of Wada et al (US 4,998,174).

Claim 17, Joannou shows a step of passing the tape over a trailing edge, the trailing edge being disposed adjacent to the head surface such that the tape passes over the trailing edge after passing over the head surface.

Joannaou does not show that the trialing edge is rounded.

Wada et al shows a magnetic head, wherein the edges and corners are rounded (Fig. 5) for preventing damage on the flexible recording medium (Column 13, lines 25-27). One of ordinary skill in the art would have been motivated to round the edges, including trailing edge, for preventing damage on the recording medium.

Claim 18 are rejected for the same reason as for claim 16.

7. Claims 19, 21-23, 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joannou (US 4,996,609) in view of Lee (US 5,694,277).

Joannou shows a method of making a servo write head for magnetic tape (Column 2, lines 62-67), the method including the steps: forming space 48 in an ferrite wafer (Column 5, lines 66-67) of the head; and to form a ferrite-non-magnetic-ferrite arrangement (Fig. 2) for writing a position pattern to the tape.

Joannou does not show a step of placing a non-magnetic material in the space.

Lee shows a magnetic head in Fig. 3A, wherein the gap 14 is made of non-magnetic material glass (Column 3, lines 12-13). It is also well know in the art that using non-magnetic material, such as glass is commonly practice and a notorious technique in the art. One of ordinary skill in the art would have been expecting that the gap would have been filled with a non-magnetic material.

Claim 21, Joannou shows the step of forming a layer of magnetic material having at least one magnetic gap 52 (Fig. 2; column 6, lines 42-50) over the non-magnetic gap over the non-magnetic material to form the magnetic pattern for writing the servo pattern.

Claim 22, Joannou shows a step of mating a lower ferrite wafer to the upper ferrite wafer to complete a magnetic circuit around the gap (Fig. 2).

Claims 23 and 26, Joannou shows a step of adding an inductive winding 50 (Fig. 2; column 5, line 13), wherein the head has a channel (Fig. 2) through which the inductive winding passes.

Claim 25, Joannou shows the step of forming non-magnetic space 48 (Fig. 2) in the upper ferrite wafer proximate to the gap to enhance the magnetic circuit.

Claim 27, Joannou shows in Fig. 2 the upper ferrite wafer 32 forms a magnetic shunt in the areas marked 52 around the gap.

Claim 28, as described above, Joannou shows that the upper ferrite wafer has substantially planar head surface such that the tape contacts the leading edge before passing over the head surface, the method including the step of rounding the leading edge so as to form an air bearing between the head and the tape.

8. Claims 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joannou (US 4,996,609) in view of Lee (US 5,694,277) as applied to claim 19, and further in view of Kumagai et al (US 5,512,222).

Claims 20 and 24, Kumagai et al shows in Figs. 3-7 that a plurality of the heads are formed through a batch processing of the upper ferrite wafer. And the batch processing is well used approach in the art. One of ordinary skill in the art would have

been expecting that the plurality of heads would have been formed through a batch processing of the upper ferrite wafer.

Conclusion

9. The prior art made of record and not relied in PTO-892 form upon is considered pertinent to applicant's disclosure.

- US 5,289,330 to Wada shows in column 1, lines 42-45 an inherent air bearing surface between the head surface and tape.
- US 5,423,116 to Sundaram shows in column 3, lines 26-28 that an inherent air bearing surface between the head surface and tape.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2652

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TIANJIE CHEN
PRIMARY EXAMINER